

## REMARKS

The above Amendments and these Remarks are in reply to the Office Action mailed September 23, 1999. With the cancellation of Claims 22–24, 26 and 31-32, and the addition of Claims 33-52, Claims 4-21, 25, 27-30 and 33-52, are presented herewith for consideration.

### I. Misnumbering of Claims

Applicants acknowledge the renumbering of the misnumbered pending claims, as well as the corresponding change in the base claim reference in the dependent claims. The claims pending prior to the current amendment are Claims 4-32.

### II. Double Patenting Rejection of Claims 4-32

Claims 4-32 have been rejected on nonstatutory double patenting grounds. Applicants have submitted herewith a terminal disclaimer disclaiming that portion of the present application which would otherwise expire beyond the expiration date of U.S. Patent 5,823,782.

### III. Claim Amendments

Applicants have amended the claims in a way that is believed to more particularly point out and distinctly claim the subject matter of the invention. In particular, Claims 4-21 and 25 have been amended to recite in part a visual display which provides an environment with which a child or user interacts. Claims 4-21 and 25 have further been amended to indicate that the interactive environment presents the user with an event or scenario requiring the user to exercise judgement and/or cognitive processes in response to the event or scenario. With respect to Claims 27-30, these claims have been amended to recite in part a system of hand-held objects that are capable of interacting with a standard personal computer system.

IV. Rejection of Claims 4-9, 11-14, 22-23, 25-26, 31 and 32 Under 35 U.S.C. §102(b)

Claims 4-9, 11-14, 22-23, 25-26, 31 and 32 have been rejected under 35 U.S.C. §102(b) as being anticipated by United States Patent No. 5,129,654 to Bogner ("Bogner").

A. The Cited Reference

*Bogner* discloses an electronic game apparatus including a chess board 20 (Figs. 1 and 2) having a detector circuit 30 beneath its surface for detecting chess pieces 48 on the board. The system includes a computer 32, which is described in the reference as a dedicated "chess computer", including hardware specifically configured for and dedicated to the chess game. As shown in Fig. 11 and as described in the application at Column 14, starting at line 6:

A very promising application for the invention is to utilize it in conjunction with a microprocessor 33 and a voice synthesizer 96 to produce a chess computer which eliminates all the present man-machine interfaces that make playing on a conventional chess computer awkward. . . such a chess game [in accordance with *Bogner* is] a truly personal experience, without any knowledge of computers or symbology required of the player.

The reference also discloses at Column 14, starting at line 20 that in operation:

The chess computer . . . determines a counter-move and utilizes the voice synthesizer to "tell" the player where to move one of the computer's pieces. . . If the player moves the wrong piece for the computer, or moves the correct piece to the wrong square, the computer will know and can tell the player to correct the error.

The system of *Bogner* further includes a display. However, the display is not used by the player. The display is provided for an audience watching the chess game. As set forth in the Background section of *Bogner*, at Column 1, lines 46-57:

Another disadvantage of a "standard" chess game is that the number of spectators that can observe the actual match is very limited, and often spectators are denied the privilege of watching for fear of disturbing the players. Such games are usually recreated on a secondary chess board and displayed for an audience in another room or at a remote location. There is a definite need for a chess set which would eliminate these

deficiencies and allow a game to be automatically recorded, no matter how fast the players move the pieces, and that would allow a large audience to observe the game without disturbing the players.

B. Differences Between the Cited Reference and the Claimed Invention

1. The Display of *Bogner* Does Not Create an Interactive Environment

The display of *Bogner* is wholly unconcerned with creating an interactive environment for a child or other user. In fact, the player of the system of *Bogner* does not interact with the display at all. The Background section of *Bogner* at Column 1, lines 46-57 makes it clear that the display is provided for an audience watching the chess game. The reference in fact teaches away from an interactive display for the player, as the reference states that the display is provided specifically to prevent disturbing the player.

On the other hand, in one embodiment of the present invention, a visual display is provided for presenting events and scenarios to a child or user of the system, and the child or user reacts to these events and scenarios by manipulating the hand-held objects. This type of interaction with a visual display is nowhere disclosed or suggested in *Bogner*.

2. *Bogner* Does Not Involve Selection by Cognitive Processes In Response to an Interactive Environment Event

In one aspect of *Bogner*, because the chess computer is incapable of moving the pieces itself, the computer directs the player to move a chess piece on the computer's behalf. However, in choosing the piece to move, there is no cognitive thought or judgement involved on the player's part. The player is told exactly which piece to move and exactly where to move it. The player's action is merely a mechanical action, without discretion, which is necessary because the computer is incapable of moving the piece itself.

On the other hand, it is a feature of one embodiment of the present invention that a child or other user exercises judgement and/or cognitive processes to select an object from a group of objects for placement at a position on the platform. This is one of the features that allows the present invention to create an interactive environment for a child or other user that is educational and/or entertaining in ways not disclosed nor contemplated by the cited reference.

Each of Claims 4-9, 11-14 and 25 has been amended to expressly recite the above features of the present invention. In particular, Claims 4-9 and 11 as amended each recite an object recognition system, including:

a visual display capable of providing an interactive environment for a child, the interactive environment presenting a child with a visual event requiring the child to cognitively react by selecting and manipulating one or more hand-held objects of said plurality of hand-held objects in response to said event.

Claims 12-14 as amended each recite an object recognition system, including:

a visual display . . . providing an interactive environment for a user of the system, the interactive environment presenting a visual scenario to the user requiring the user to exercise judgement in selecting and manipulating an object of the plurality of objects in response to said scenario.

And Claim 25 is dependent on Claim 16, which as amended recites an object recognition system including:

a visual display capable of presenting an interactive environment for a user of the system, the interactive environment presenting an event to the user requiring the user to exercise judgement in selecting and placing an object of the plurality of hand-held objects at a position on said platform in response to said event.

As set forth above, these recited features are nowhere disclosed or in any way suggested in *Bogner*. It is therefore respectfully submitted that Claims 4-9, 11-14 and 25 are patentable over the cited reference, and it is respectfully requested that the rejection of these claims on section

102 grounds be withdrawn.

3. *Bogner* Does Not Disclose Blocks Having Alphanumeric Characters,  
Where a Device Prompts Selection of Blocks In a Particular Order

In addition to each of the above-discussed distinctions between the present invention and the cited reference, Claim 11 recites an object recognition system:

wherein said plurality of hand-held objects comprise a plurality of blocks, each block of said plurality of blocks including at least one alphanumeric character on a surface thereof, said device prompting selection of blocks including particular characters to be positioned on said platform in a particular order.

*Bogner* fails to disclose or in any way suggest such a system.

It is axiomatic that for a reference to form an anticipation of a claimed invention, the reference must disclose each and every limitation found in the claims. *Electro Med. Sys. S.A. v. Cooper Life Sciences*, 34 F.3d 1048, 1052 (Fed. Cir. 1994). As set forth above, several distinctions exist between the cited reference and the present invention, which distinctions expressly appear in Claims 4-9, 11-14 and 25. Therefore, it is respectfully submitted that *Bogner* cannot form an anticipation of these claims, and it is requested that the rejection of Claims 4-9, 11-14 and 25 over the cited reference on section 102 grounds be withdrawn.

V. Rejection of Claims 10, 15 and 24 Under 35 U.S.C. §103

Claims 10, 15 and 24 have been rejected under 35 U.S.C. §103 as being obvious over *Bogner* in view of U.S. Patent No. 5,275,567 to Whitfield ("Whitfield"). *Whitfield* is cited for the teaching that the hand-held objects can include Braille marks.

Claims 10 and 15 are dependent on independent Claims 4 and 12, respectively. As discussed above with respect to those claims, *Bogner* does not disclose or in any way suggest a system where a child or other user interacts with a visual display or exercises judgement and/or cognitive processes to select an object from a group of objects in response to an event. *Whitfield* adds nothing to the teaching of *Bogner* in this regard.

It is therefore respectfully submitted that Claims 10 and 15 are patentable over the cited references, taken either alone or in combination with each other, and it is respectfully requested that the rejection of these claims on section 103 grounds be withdrawn.

#### VI. Rejection of Claims 16-18, 20-21 and 27-29 Under 35 U.S.C. §103

Claims 16-18, 20-21 and 27-29 have been rejected under 35 U.S.C. §103 as being obvious over *Bogner* in view of Soviet Union Patent No. 20792 to Csizmadia ("Csizmadia"). The Derwent translation of the title of the reference discloses, "demonstration equipment for game pieces on playing board - has selective signal emitter working together with signal sensor underneath playing field to transmit state of play".

##### A. Differences Between the Combined Teaching of the Art and the Claimed Invention

###### 1. The Cited References Do Not Teach or Suggest a Display for Creating an Interactive Environment, Nor Do the Cited References Teach or Suggest Selection by Cognitive Processes In Response to an Interactive Environment Event

As previously discussed with respect to Claim 16, the player of the system of *Bogner* does not interact with the display at all, and the display of *Bogner* is wholly unconcerned with creating an interactive environment for the player. Moreover a system where a child or other user exercises judgement and/or cognitive processes to select an object from a group of objects is

nowhere taught or suggested in *Bogner*. *Csizmadia* adds nothing to the teaching of *Bogner* with respect to either of these features.

It is therefore respectfully submitted that Claim 16, and Claims 17-18 and 20-21 dependent thereon, expressly reciting these features are patentable over the cited references, taken either alone or in combination with each other, and it is respectfully requested that the rejection of these claims on section 103 grounds be withdrawn.

2.     The Cited References Do Not Teach or Suggest  
an Interactive System Used with a Personal Computer

Regarding Claims 27-29, each of these claims have been amended to specifically recite in part a personal computer including an executable code loading device, an executable code storage device, a processor and a display. Applicants respectfully submit that they were the first to invent a system of hand-held objects that are capable of interacting in the recited fashion with a standard personal computer system. As set forth in *Bogner* at Column 14, starting at line 6, quoted above, that reference discloses a dedicated "chess computer", which is structurally and operationally different than a standard personal computer system which operates with the present invention. Moreover, those structural distinctions provide several advantages which are nowhere found in the prior art. Advantages of a claimed invention over the prior art must be considered in determining whether the invention as a whole would have been patentable over the prior art.

*Preemption Devices v. Minn. Min. & Mfg. Co.* 732 F.2d 903, 906 (Fed. Cir. 1984).

a.     Chess Computers of Cited References  
Are Isolated from the Outside World

A shortcoming of the cited references is that, once assembled, the dedicated chess computer disclosed therein are isolated from the outside world. That is, it is not possible for a

user to add to, improve or alter the user interface of the chess computer of the cited references beyond what is provided with the initial configuration of the system. The user is limited to whatever hardware and software are initially included with the system.

By contrast, it is an advantage of the present invention that the user interface may be constantly varied to create a wide variety of new interactive uses of the system. This may be accomplished by adding new software from the internet or a data storage medium. For example, the application software generating and monitoring the graphical user interface may be constantly updated to include narration, direction and response from whichever children's pop icon is popular at the time. So when a child or other end user grows tired of a particular graphical user interface, it may be replaced by a new one to prolong the usage of the system according to the present invention. This feature of the present invention adds a level of flexibility to the present invention not disclosed or contemplated by the cited references.

b. Present Invention is More Cost Efficient Than the Systems of the Cited References

In order to use the systems of the cited references, an individual must not only purchase the chess board and the chess pieces, but he or she must also purchase the chess computer, which chess computer is significantly more expensive than the board and pieces by themselves and greatly increases the overall cost of the system to the user.

By contrast, the system of the present invention may be used with a standard personal computer. As most homes in the market for the present invention already have a personal computer, all that the end user needs to purchase is the working platform and the hand-held objects according to the present invention. As such, the price to the user of the present invention is significantly lower than the systems of the prior art references, and is accessible to a much

larger cross section of users.

The feature of an interactive system used with a personal computer is expressly recited in Claims 27-29. As neither this feature, nor the several advantages provided thereby, are taught or suggested in the cited references, taken either alone or in combination with each other, it is respectfully requested that the rejection of Claims 27-29 section 103 grounds be withdrawn.

VII. Rejection of Claims 19, 29 and 30 Under 35 U.S.C. §103

Claims 19, 29 and 30 have been rejected under 35 U.S.C. §103 as being obvious over *Bogner* in view of *Csizmadia* and further in view of *Whitfield*. Claims 19, 29 and 30 are dependent either directly or indirectly on Claims 16 and 27. As discussed above, Claim 16 has been amended to recite in part a system where a child or other user exercises judgement and/or cognitive processes to select an object from a group of objects for placement at a position on the platform, and Claim 27 has been amended to recite in part a personal computer. None of the cited references, taken either alone or in combination with each other, teach or suggest such systems. Therefore, it is respectfully submitted that Claims 19, 29 and 30 are patentable over the cited references, taken either alone or in combination with each other, and it is respectfully requested that the rejection of these claims on section 103 grounds be withdrawn.

VIII New Claims

Applicants have added new Claims 33-52. No new matter has been added.

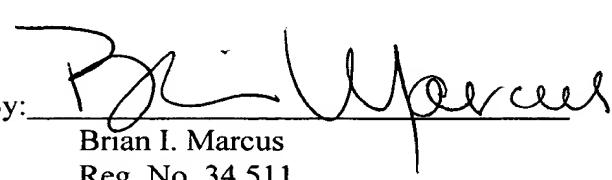
Based on the above, reconsideration of Claims 4-21, 25 and 27-30, and consideration of Claims 33-52, is respectfully requested.

The Examiner's prompt attention to this matter is greatly appreciated. Should further questions remain, the Examiner is invited to contact the undersigned attorney by telephone.

Respectfully submitted,

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